Circulating in the Peruvian Coastal Desert in Pre-Columbian Times: A View from Tambo Colorado (Pisco Valley, Peru)

Cléa Moulin
Sainsbury Research Unit, University of East Anglia

Introduction

Although deserts are often considered to be extreme places, with non-habitable conditions, many cultures have started and flourished in deserts. The Peruvian Coastal Desert is the northern continuation of the Atacama Desert and is one of the driest places on Earth (Santoro et al. 2005: 246). This desert stretches from Tumbes in northern Peru to Tacna in southern Peru. The Peruvian Coastal Desert grows out of the western foothills of the Cordillera to the Pacific Ocean, with a width of 50 to 100 km separated by valleys approximately every 50km (O.N.E.R.N. 1973: 7). Though rainfall is almost non-existent on the coast, less than 1 cm on average (O.N.E.R.N. 1973: 43), the rain during the austral summer in the highlands nourishes the coastal rivers.

This paper focuses on the roads and paths through which people moved in the desert during pre-Hispanic times, and their cultural and social significance. Specifically, it asks how the desert landscape could have been perceived by its inhabitants and its travellers: what was (is) the landscape's

meaning for the local inhabitants? Archaeologists often study the Peruvian Coastal Desert through its valleys, where each valley is examined as a different entity with particular socio-political development and complexity. I will here focus on two valleys of the South Coast of Peru: the Chincha Valley and the Pisco Valley (fig. 1). The roads that crossed through the valleys were key elements in each valley's bid for economic and socio-political power indicating a complicated relationship between the roads and their travellers. Inspired by the work of Dwight Wallace (1991) on the Chincha road system, this paper explores the roads emitting from Tambo Colorado and their socio-cultural significance. Particularly, it argues that Tambo Colorado controlled trade during the Late Intermediate Period (AD 1000–1400) and the Late Horizon (AD 1400–1534), and that the roads associated with the site held a social and ideological significance as part of a cultural landscape. The focus will be on the road that connected the site of La Centinela with the Pisco Valley up to the highlands (fig. 1).

Tambo Colorado (fig. 1 and 2), which is located in the mid Pisco Valley, is known for its monumental Inca sector with impressive mural paintings (Wright et al. 2015a). The site was inhabited long before the Inca conquest (Engel 1957; Gildemeister Flores 2015; Moulin 2018; Wright et al. 2015b) and is the natural gateway to the highlands. Due to its unique position, Tambo Colorado and its roads played an important role in the economic and socio-political organization of the Late Intermediate Period on the South coast of Peru and in the inter-valley dynamics. The site of La Centinela (fig. 1), located in the lower Chincha valley, is believed to have been the political and ceremonial centre of the Chincha polity during the Late Intermediate Period prior to the Inca conquest, serving both as a pilgrimage centre and the Chincha capital (Wallace 1991, 1998; Morris and Covey 2006; Morris and Santillana 2007; Nigra et al. 2014). The Chinchaycamac oracle, who was considered a 'child' of *Pachacamac*, is one of the most important oracles and pilgrimage centres located on the central coast of Peru in La Centinela (Menzel and Rowe 1966). La Centinela was also the largest ceremonial centre on the South coast of Peru (Wallace 1998: 9).

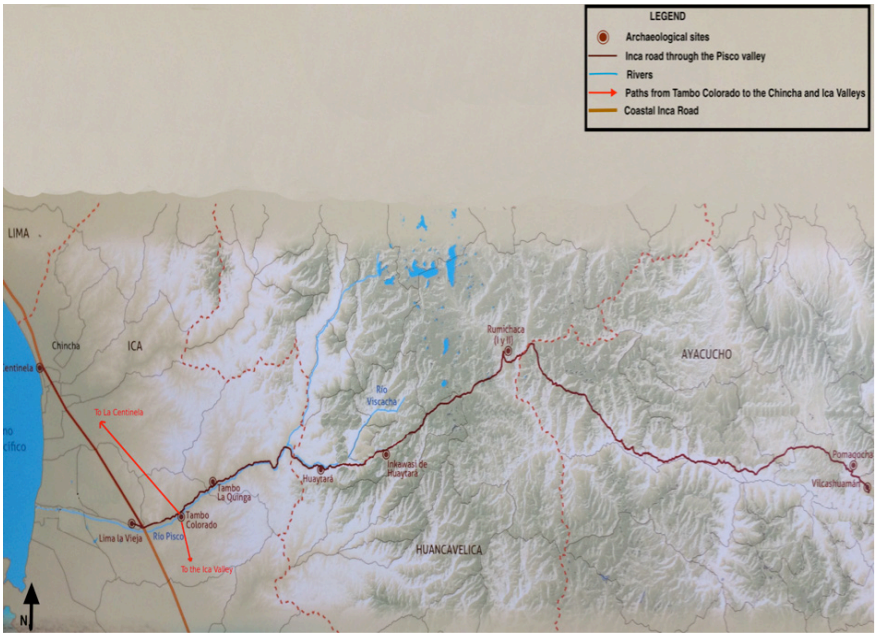

Fig. 1. Roads in the Pisco Valley (adapted from the map of the Qhapaq Ñan, museo de sitio Tambo Colorado).

Previous Research and Archaeological Context

Archaeological research in the Chincha and Pisco valleys began with the work of Max Uhle in 1901 and has continued since (see among others Beresford-Jones et al. 2008, 2011; Kroeber and Strong 1924; Menzel 1966, 1976; Sandweiss 1992; Protzen 2008; Uhle 2005). This work only focuses on the road systems in the Pisco Valley. In the Andes, the study of roads has long been dominated by investigations of the Great Inca road, though roads and paths are an important component of any society and are an example of its adaptation to its environment (see Trombold, 1991).

In the Andean context Hyslop, author of a seminal investigation on the Inca Trail, argues that roads "will help define the relationship of sites within a settlement pattern. They will point to special areas (mines, shrines, storage

Fig. 2. Tambo Colorado's location on the Inca road system (©PRTC, reproduced with permission of the PRTC).

areas, quarries, control points, and so forth" (Hyslop 1991: 28–29), which enhance the understanding of a society.

In the region described in this paper, only the Inca roads have been investigated which means that there is no certainty whether pre-Inca ones are roads or paths. Roads are defined here as "formal routes (…) laid out by planners and requiring organised labour in construction", whilst paths are "informal routes beaten by repeated individual movements of people across the landscapes" (Earle 1991: 10–11). Anywhere roads exist, they naturally follow older and long-established paths. The Inca networks were known for incorporating local and small paths into their larger network. Lumbreras (1974: 162) argues that the Inca rebuilt roads from an earlier

Wari[1] system, while Hyslop (2004: 210) argues that at least some sections of the roads of the Pisco Valley are pre-Inca and suggests that Tambo Colorado was an important stop for the control of the flow of goods to the highlands (fig. 1 and 2). Therefore, Tambo Colorado had important significance during the Inca Empire since it was located on the road from the coast to Cusco, one of the most important trade roads of the Empire (Hyslop 2004: 205).

Hyslop also notes that studying roads can "define the relationship of sites within a settlement pattern" (Hyslop 1991: 28–29). Travellers used the Inca road crossing the main plaza until the 1980s to travel to Ayacucho (Protzen 2008). The modern road bypasses the site, on its southern extremity, and still is the main road to Ayacucho. This implies both the use of this road for at least hundreds of years and that it was (still is) an important means of communication between the coast and the highlands. Inca monumental architecture had been constructed around the road, reinforcing Inca control of travel on this road system in the past. In fact, the road crosses the site through its main plaza where ceremonial activities were held. When coming from the highlands, the site is only visible about 200m before arrival. Travellers would have proceeded down the hill and have been astonished by the monumentality of the site.

Functions of the Road from La Centinela to Tambo Colorado

The main road going through Tambo Colorado and the Pisco Valley is part of the Inca road going from La Centinela in the Chincha Valley to Vilcashuaman in the highlands (fig. 2). The section from La Centinela to Tambo Colorado goes across the desert plain, in a south-east direction from La Centinela (Wallace 1991: 256), far away from the river and vegetation. This road was already used during pre-Inca times (Hyslop 2004: 209–210). People have been moving along this road for six millennia, as evidenced by the discovery of obsidian debitage on a Preceramic site in the Ica Valley that came from the Quispisisa source at Huaca Santos (Beresford et al. 2018: 397).

[1] The Wari was an important, expansive state that developed in the central Andes around AD 500–1000. It seems to be the first empire of the Andes, with planned settlements to control transport and communications (Schreiber 1992).

In the Spanish chronicles (Cieza 1984 [1550], 1985 [1553]; Crespo 1975; Rostworoski 1970; 2004), the Chincha señorío (kingdom) is often described as wealthy. Some researchers (Menzel and Rowe 1966; Rostworowski 2004; Barraza 2017) have suggested that its wealth and power came from the control of the *Spondylus* trade — a mollusc species harvested in the tropical waters of Ecuador that played an important ritual and social role in the Andes since at least the Early Horizon (BC 1200–200) (Barraza 2017: 417). However, Sandweiss and Reid (2016: 312) argue that the Chincha kingdom only became a major inter-regional trader after the Inca conquest. They argue that Chincha became the ideal intermediary because of its location and its control and/or influence over the Pisco Valley (Sandweiss and Reid 2016: 321). The Chincha were also experienced sea navigators (Sandweiss and Reid 2016: 321). I argue here that Chincha controlled the Pisco Valley and at least influenced the south coast down to the Ica Valley during the late stages of the Late Intermediate Period as evidenced in the ceramic record (see Menzel 1976).

The supposed role Chincha played in *Spondylus* trade from Ecuador to the highlands would have been an important concern to the Inca. In particular, Barraza (2017) has investigated the link between the road section going from La Centinela to Vilcashuaman and the *Spondylus* trade. According to Barraza, Tambo Colorado played an important role in the *Spondylus* trade as the site would be a place of negotiations between the Chincha elites and the Inca elites, a role that can be seen indicated by decorative details on the Northern palace (Barraza 2017: 436). The Chincha traded *Spondylus* and *guano* from La Centinela to Huaytára (Barraza 2017: 436). Wright et al. (2015a) suggest that the road was also used for the circulation of the black pigment made of manganese that came from Ayacucho and was used in the mural paintings of Tambo Colorado and for ceramic production on the North coast of Peru (Solar Velarde 2011). The importance of the materials traded along the roads would have affected the status and role of the sites located along them. Luxury goods are a representation of power; thus the elite would have particularly controlled the roads and sites through which they transited. However, it is reasonable to suppose that many other goods, such as wool and food products, were exchanged following the principle of Andean complementarity (see Salomon 1985).

Fig. 3. One of the paths going to the Chincha Valley from the sector La Cima (Photograph by Cléa Moulin).

Recent work on areas to the north and northeast of the monumental Inca zone of Tambo Colorado has demonstrated that the site was inhabited during the Late Intermediate Period prior to the construction of the Inca sector and that these sectors appeared to have been under Chincha control (Moulin 2018). Whilst studying the sector 'La Cima', it became clear that the easiest access to this site would have been from the north-west, directly through the desert. In fact, a path seems to be leading to the mid and lower Chincha valley and possibly on to La Centinela (fig. 3). This path is not as large as the road going to the highlands, and compared to the Inca road, it appears secondary and less planned. If Tambo Colorado was under Chincha control during the LIP, then it is probable that some Chincha settlements had a direct access to Tambo Colorado. The site would have been a control centre for traffic, especially trade, to the highlands and south to the Ica Valley. Additionally, this underlies the Inca strategy of turning Tambo Colorado into an administrative and military centre, as suggested by Hyslop (2004: 205). Therefore, it is likely that Tambo Colorado was

used both during pre-Inca and Inca times as a control centre on the trade route between the Chincha polity and the highlands.

Regarding the Chincha road system, Wallace suggests that it had an ideological function as well as socioeconomic and political functions (Wallace 1991: 253, fig. 21.2) The Chincha roads functioned as a means to strengthen the socioeconomic power of the Chincha kingdom, and as the roads all emitted from La Centinela, they enhanced the city as an economic centre through "economic activities" such as trade (Wallace 1991: 262). Additionally, the roads were also the means for pilgrims to get to the Chinchaycamac oracle in La Centinela. If La Centinela was indeed the most important religious centre south of Pachacamac, it is easy to imagine that pilgrims would come from other neighbouring valleys, such as Pisco and Ica, and from the highlands. Wallace argues that the roads leading to La Centinela emphasised the symbolic importance of the site (Wallace 1991: 262).

Indeed, since these roads enabled the communication of economic and political ideas to the people who used them, they were an important source of social power to the Chincha elite (DeMarrais et al. 1996). During the latter part of the Late Intermediate Period, Tambo Colorado was under Chincha control, and the site was probably employed as a control centre, particularly for the traffic to and from the highlands. The roads emitting from it were also a representation of the Chincha economic power, both by providing trade movement and by linking important settlements together. The roads surrounding Tambo Colorado would have similar or even more important symbolic, economic, and political meanings to that of the other Chincha roads.

La Centinela–Tambo Colorado: The Road through the Desert

However, it remains unclear both how the desert landscape around these roads was perceived and what meaning this landscape had for its inhabitants. It is often assumed in Peruvian archaeology that river valleys formed a cultural pattern where inhabitants would live by the river and follow the river course to move from one site to another. However, in the Ica valley, it has been shown that the optimal paths are rarely the ones following the

river (Zeki 2014: 74). This research has demonstrated that it takes about six hours for a journey of less than 30 kilometres from the mouth of the Ica River to the Samaca Basin, whereas the same journey following the course of the river would take two days (Zeki 2014: 73–74). Between Tambo Colorado and La Centinela, on a time-consumption basis, the shorter road would be through the desert since, it is about 20 kilometres shorter than the route along the river. Following Zeki's ideas about the Ica valley, it seems that the journey between La Centinela–Tambo Colorado–Ica would likely have been along roads through the desert and not, as perhaps expected, along the river (fig. 1). However, symbolic elements should be considered, such as the importance of water as a sign of power for the Incas (Chacaltana, 2017). The Inca sites along the road from Tambo Colorado to Vilcashuaman are distinguished by the presence of fountains, which placed water as an important ritual component (Chalcatana 2017). Hyslop also argues that the Incas avoided crossing the desert directly, and if possible, detoured to stay close to the Andean foothills where fresh water was available (Hyslop 2004: 385–386).

Therefore, following the work of Zeki in the Ica Valley, why does water not hold such an important role on the road section that is located in the desert? Further studies are needed to estimate the numbers of travellers following these roads. Also, could it be possible that the choice of the road was linked to its symbolic meaning? Neither La Centinela nor Tambo Colorado (prior to the Inca conquest) show any evidence of a particular role for water outside the irrigation systems. Water would be expected to be particularly significant for inhabitants and travellers of the desert, so how did the inhabitants' perception of the desert and their neighbouring environments shape the meaning of the roads?

To answer these questions, it is necessary to examine the landscape surrounding the roads and Tambo Colorado. In 2004, a team from the University of California, Berkeley conducted surveys around Tambo Colorado and evidenced an important connection between the ancient landscape and local people and also between "ancient and modern mental maps", with a surrounding landscape consisting of many *huacas* (Forte et al. 2005: 5-6). *Huacas* are often described as sacred things that can take different forms such as rocks, mountains, or mummies for example;

Fig. 4. Modern huaca and offering in the sector La Cima (photograph by Cléa Moulin)

however, not everything was considered a *huaca*[2] as not everything had personhood and special power (Bray 2015: 13). In fact, one can observe some modern *huacas* when walking around Tambo Colorado, for example in the sector of La Cima there is a *huaca* with modern offerings (fig. 4). Moreover, the Berkeley team conducted interviews with the local community and were told that all the surrounding landscape of Tambo Colorado was sacred and that the landscape belongs to the ancestors (Forte et al. 2005: 6).

Drawing on Forte et al.'s work, I analysed Tambo Colorado's surrounding landscape. Before determining where the *huacas* are/were located, it is necessary to understand what the term means and to understand the Andean conception of the world as animistic (Allen 1988, 1998, 2015,

[2] Here I follow Forte et al.'s spelling; huacas can also be found as wak'as, waqas, or guacas.

2016; Sillar 2009, 2016). Sillar suggests that Andean animism "conceives of the physical world as a multitude of sentient places, objects, and beings that include humans and animals" (Sillar 2016: 442) and this makes a community that is interdependent and that can communicate and exchange. Moreover, Allen argues that "for Pre-Columbian Andeans, the world was animated; the whole universe was potentially alive and imbued with spirit" (Allen 2015: 24). Thus, all material things are active agents in human activities (Bray 2015: 8). This concept is key to comprehending what a *huaca* is and what a *huaca* does. Additionally, what the Western world deems as sacred is actually "imbricated in the profane and the quotidian realm of Andean lives" (Manheim and Salas Carreño 2015: 47). Therefore, *huacas* can only be identified and understood, by recognising them as "sources of social agency" (Manheim and Salas Carreño 2015:

Fig. 5. View of La Cantera (photograph by Cléa Moulin)

Fig. 6. Location of the sectors La Cantera, La Cima, and Cerro Auquix, with indication of the direction of the roads going to Vilcashuaman and the Chincha Valley (Digitalized by Emma Brownlee)

66) and by identifying material practices related to them because *huacas* were nonhuman actors of social practices (Bray 2015: 13–14).

In the sector 'La Cantera'[3] (fig. 5 and 6) in Tambo Colorado, recent excavations revealed that it had been used as a pigment mine for hundreds of years and that offerings had been made at the site (Wright et al. 2015b; Wright et al. 2016). La Cantera is distinguishable due to its red coloration from the section of the road coming from the highlands and La Cima and the road going to the Chincha Valley (fig. 5). Mines were considered special places and there is archaeological evidence of ritual offerings in mining contexts throughout the Andes (Shimada 1994; Van Gijseghem et al. 2011; Van Gijseghem and Whalen 2017; Vaughn et al. 2013, Wright et al. 2016). Throughout its Pre-Columbian history, the inhabitants of Tambo Colorado used the mine to extract the pigment for the mural

[3] Cantera means quarry or mine.

Fig. 7. The modern offerings on one of the paths to Cerro Auquix (photographs by Cléa Moulin)

paintings of Inca monumental architecture (Wright et al. 2015). In return for providing them with pigment, they made offerings to the mine as in accordance with principles of Andean reciprocity.

While surveying the north-eastern sectors of Tambo Colorado, our team discovered two modern offerings, including a bottle probably full of chicha, scattered coca leaves and other things covered by a textile, at the foothills of Cerro Auquix, a pre-Inca, Inca, and colonial cemetery (fig. 7). During my 2016 fieldwork in Tambo Colorado, our driver, Milton Paredes from the village of Humay (10km from Tambo Colorado), told me that Cerro Auquix was sacred because it was both a mountain and a place where the ancestors were buried. He added that my headaches came from Cerro Auquix, because I was getting information from Cerro Auquix, but I was not giving anything back. I was failing to complete the principles of Andean reciprocity. Unfortunately, Cerro Auquix has been heavily looted

and the test pit that we opened did not bring any useful archaeological evidence regarding material practices.

These are only three of the *huacas* that have been identified so far. However, further research at Tambo Colorado and on the road to the Chincha Valley will provide new evidence about the cultural landscape of the region and about the social practices of its Pre-Columbian inhabitants. Chacaltana (2017: 245) argues roads are animated and part of the collective memory. Tambo Colorado was located at the crossing roads of many sites of symbolic importance, both before and after the Inca conquest that include the important oracle site of La Centinela, the *huacas* and site of Tambo Colorado, and the sites of Huaytará, Inkawasi de Huaytará, Vilscahuman (see Chacaltana 2017). The road to the highlands also led to the manganese mines and obsidian sources in Ayacucho (Solar Velarde 2011; Wright et al. 2015a; Beresford et al. 2018). For Andean people of the past, following this road would have been a special event; not only would one feel the economic and political power of the Chincha polity, but one would have experienced its symbolic meaning as well. Just as modern Andean travellers leave offerings (see Sillar 2009), it is possible that ancient Andean travellers would also have left offerings along the road, because the roads carried the social memory of their ancient travellers and became part of the Andean animistic world. Only further investigation will be able to confirm this hypothesis.

Conclusion

The first goal of this paper was to demonstrate that Tambo Colorado played an important role during both pre-Inca and Inca times as a control centre on the Chincha trade roads. It appears likely that during at least the Late Intermediate Period and the Late Horizon, Tambo Colorado was the gateway to the highlands, controlling traffic to and from the highlands. There is no doubt that the Inca chose to establish an important military and economic centre in Tambo Colorado because of its already important role as a control centre over the roads between the Chincha, Pisco and Ica Valleys as well as the highlands. Secondly, in examining the landscape around these roads and Tambo Colorado, it becomes clear that they also held an important symbolic meaning, as they were part of an animated

and sacred landscape in which the local community still considers features as sacred. Roads, such as the ones discussed in this paper, allowed people to connect and interact with their landscape, helping to make the sacred a more tangible aspect of their everyday life. This article is a first attempt to understand this landscape and the inhabitants' perception of the desert in relation to the road systems linked to Tambo Colorado. Finally, the inhabitants of the Peruvian Coastal desert adapted to their landscape and deliberately chose paths farther away from the river and through the expansive deserts.

More research will be necessary to fully apprehend how the ancient inhabitants of the Chincha and Pisco Valleys perceived and moved in the desert. First, to understand movement through this desert landscape, it is important to conduct more research on the pre-Inca roads and paths. Surveys of all the paths and roads with test pits across the Chincha and Pisco Valleys are fundamental to date them and understand how and when they were used. This will enable us to tackle other issues such as the movements between the different ecological zones of the region, and the types of goods that were probably exchanged. Ultimately, this work contributes to studies beyond the Andean region by emphasizing that the study of social practices in the landscape is necessary to understanding the socio-political complexity of any society and in particular its perception of the surrounding world.

Acknowledgements

The field research at Tambo Colorado and in the Pisco valley was funded by the Sainsbury Research Unit (University of East Anglia), and the Carlos Brignardello scholarship from the French Institute of Andean Studies in Lima (IFEA – Ambassade de France au Pérou). The doctoral research, base of this paper, was funded by the Robert Sainsbury Scholarship (University of East Anglia). Authorization for fieldwork was granted by the Ministerio de Cultura del Perú, and fieldwork would not have been possible without the members of the Proyecto de Investigación Arqueológica-Tambo Colorado. I am grateful for the discussion and help provided by the members of the Projet de Recherche Tambo Colorado and in particular Dr. Véronique Wright and the technical support from the members of

the project Qhapaq Ñan-tramo Vilcashuaman-La Centinela during my fieldwork. I am indebted to Paige Plannette and Agathe Duperyon for their comments on the early drafts.

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